



argus

MODEL C-2

MODEL C-3

With Synchronized Flash

**INSTRUCTION
BOOK**

YOUR ARGUS CAMERA

Your Argus camera is a precision instrument of All-American manufacture known as a thirty-five millimeter camera from the width of film it uses. The f:3.5 Cintar lens with which your Model C-2 or C-3 Argus is equipped is a three element anastigmat lens of fifty millimeter focal length. These Argus lenses are compounded of a number of pieces of optical glass combined by exact computation and accurate grinding to assure you needle-sharp pictures in either black and white or color.

Although your Argus camera is ruggedly built to stand years of hard service, it must be treated with the same care as any other high quality precision instrument. Never attempt any repairs yourself and never oil the camera mechanism. The delicate adjustments in any camera demand an experienced repair man for the work, and can be satisfactorily done in our own Service Department. The guarantee and service policy applying to your camera will be found at the end of this instruction book.



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IF YOU'RE AN EXPERT

If you are accustomed to using a candid type camera, the brief instructions given below will suffice. It is strongly recommended, however, that the experienced amateur as well as the beginner read the step by step instructions which are given on the pages following. We know that better pictures will be your reward for taking the added time to carefully read the instructions in this book.

BRIEF INSTRUCTIONS

- 1.—Load your camera as explained in "Loading Your Camera."
- 2.—Set shutter speed on dial (9).
- 3.—Set diaphragm opening on dial (11).
- 4.—Focus by means of range finder as explained in "Using the Range Finder."
- 5.—Cock shutter by lever (15).
- 6.—Sight and make exposure by pressing shutter release (2).
- 7.—Advance film after each exposure.

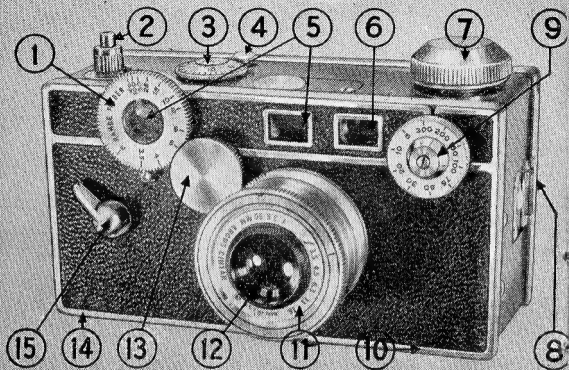


FIGURE 1

- | | |
|--------------------------|-----------------------------|
| 1. Range Finder Dial | 9. Shutter Speed Dial |
| 2. Shutter Release | 10. Tripod Socket |
| 3. Counter Dial | 11. Diaphragm Dial |
| 4. Counter Dial Release | 12. Lens |
| 5. Range Finder Openings | 13. Range Finder Idler Gear |
| 6. View Finder | 14. Rewind Knob |
| 7. Winding Knob | 15. Shutter Cocking Lever |
| 8. Lock Clip | |

LET'S PRACTICE FIRST

A few moments spent with your *empty* camera and this instruction book will repay you many times over in improved pictures. Follow the instructions carefully and deliberately, going through each motion just as though you were making a picture. Practice making imaginary pictures until you have thoroughly mastered the operation of each part of the camera. When you have done this, the opera-

tion of the camera becomes more or less automatic and more time and thought may be devoted to lighting conditions, exposure, composition and the many other factors which go to make up a satisfactory picture.

EXPLORING YOUR CAMERA

Referring to Figure 1, turn the indicator on shutter release (2) until the letter "B" is opposite the dot on the body of the camera. Set the shutter speed dial (9) at $1/50$ of a second and cock the shutter by depressing the lever (15). Now open the back of the camera by depressing the lock clip (8) and point the camera toward a window or some light-colored object. With your forefinger press down on shutter release (2) and hold it down. You will see the shutter open to admit the light. When the finger is removed from the button the shutter closes. This is known as the "bulb" or "time" exposure and can be used only for subjects in which there is no movement and only when the camera is mounted on a tripod or some solid object.

Now turn the indicator on shutter release (2) a quarter turn until the letter "I" for instantaneous is opposite the dot on the body of the camera. Cock the shutter lever again and press the release. Your shutter is now working at instantaneous and by repeating this operation several times at various speeds from $1/10$ to $1/300$ of a second you will note the smooth and quiet action of the shutter over the wide range of shutter speeds.

Again set the indicator to "B" position and cock the shutter, depressing the release (2) and holding it down. With the shutter in open position and the camera pointed toward a light object, revolve the diaphragm dial (11) until the lens opening is diminished to the smallest point. Turn this back and forth several times to become familiar with its operation. You will note on the front of the lens a series of figures preceded by the letter "f." These are known as stop values and each figure indicates the amount of light being admitted through the lens during the exposure. At $f:3.5$ the diaphragm is widest open and admits the most light. At $f:18$ through the smallest opening it admits the least light. The *smaller* openings or those with the *larger* "f" values are used on the brighter days when too much light would be likely to cause over-exposure. By the same token the *larger* stop openings or those with the *smaller* "f" values are necessary when light conditions are not as favorable such as in the late afternoon or in deep shade. So the diaphragm adjustment, together with the shutter speed adjustment, enables you to adapt your camera to various light conditions as well as to subjects with varying degrees of motion. The diaphragm also controls the depth of field or sharpness in your pictures and is an aid in securing negatives which are sharp from the near foreground to extremely distant objects. The exposure table and depth of field table at the end of this book will give you suggested shutter speeds and stop openings for use with Eastman Panatomic X, Dupont Superior, Agfa Finopan and Agfa Fine Grain Plenachrome films.

USING THE RANGE FINDER

The coupled range finder on your camera eliminates the necessity of becoming skilled in judging distances since your range finder will properly focus the camera for you. Constant use of this range finder will enable you to quickly and accurately focus the camera. If all other settings have been previously made and the shutter cocked, the exposure may be made instantly as soon as the proper focus is obtained. This is the procedure followed by press photographers in snapping candid shots under adverse conditions.

Referring to Figure 2, turn the range finder dial (1) back and forth and note how it also revolves the lens, moving it in and out in the lens barrel. With the lens extended at its farthest point your range finder will indicate three feet on the dial. Turning the dial to the one hundred foot mark you will note that the lens retracts back into the barrel. In watching this action it is easily understood that the nearer an object is to the camera the farther out your lens is extended. Conversely the farther away a subject is the farther into the lens barrel your lens must be retracted.

Now turn the camera around and point it at any clearly defined object and sight through the range finder window (25) in the back of the camera. With the camera held close to the eye again rotate the range finder dial and note that the upper half of the scene moves slightly back and forth across your line of vision. The blue lower half of the range finder image remains stationary.

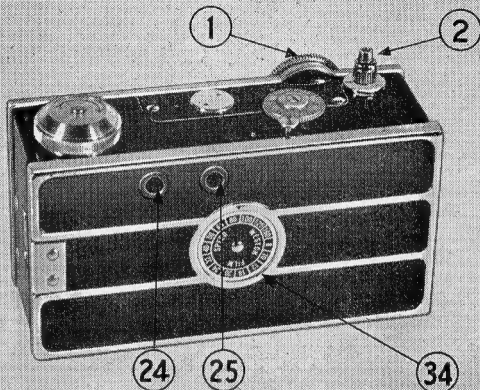


FIGURE 2

To secure sharp focus the *clear* upper image should be accurately lined up with the stationary *blue* lower image. Select a vertical object such as a telephone pole or a window frame and experiment a few minutes with this range finder until you have learned to easily line up the split image. Try it on nearby objects and also on those farther away. You will be surprised at the short time required to master this most important stage of operation.

You are now ready to practice making pictures. Do this first without film in the camera and repeat several times until the operation becomes almost mechanical, being sure to remember after each picture to advance the film by turning the film winding knob. Reference to loading instructions will help you in this regard.

Select the subject which you wish to "photograph" and compose your picture by looking through the view finder window (24) and by moving closer or backing up as may be required to secure the amount of subject matter wanted, making sure that the vertical lines are parallel to the vertical edges of your view finder. With the camera held in the conventional position it makes a horizontal picture. When you wish to photograph a subject which will appear better in vertical pictures turn the camera on end and proceed as usual. After you have determined the correct spot to stand in order to secure the picture you want, look through the right hand range finder window (25) and focus the camera by turning the range finder dial as previously explained. Select the proper shutter speed and stop opening, cock your shutter by depressing the lever and again look through the view finder window, holding the camera firmly against the cheek with the elbows resting on the chest. Slowly depress the shutter release until the shutter is tripped. Repeat this operation often enough to become thoroughly familiar with it. After you have mastered this stage of camera operation, you are ready to load your camera and actually make your first picture.

One of the most important things to remember in the use of your camera is to hold it steady when not using a tripod. It is probable you will find it most convenient to obtain steadiness by pressing the camera firmly against the cheek and placing the elbows on the chest. Immediately before the exposure draw a full breath and hold it. The shutter release should

be *slowly depressed* or squeezed and *not jabbed*. This technique is familiar to expert riflemen who obtain their greatest accuracy by holding their breath just before squeezing the trigger.

LOADING YOUR CAMERA

Your camera may be loaded with any one of a variety of thirty-five millimeter films. It is suggested that you consult your dealer for his recommendations as to film for your camera. Hold the camera with the back open as in Figure 3. Pull out the rewind knob (14) and insert the film cartridge in the camera with the lip and leader of the film pointing toward you.

When the film cartridge is properly set in position the rewind knob will snap back into place easily. Do not attempt to force it and if it does not snap freely into position turn it backwards and forwards until the slot in the shaft engages properly with the recess of the film cartridge.

With the cartridge properly placed, grasp the film leader and pull it toward you until you have withdrawn four or more inches of the film which will be sufficient to engage into the winding shaft slot. Enough of the film leader may be extended through the slot to be folded over on the opposite side. This will prevent its accidentally pulling out of the slot after the camera back is closed.

Slowly take up the slack on the winding shaft by turning the winding knob (7). As soon as the full width of the film appears from the cartridge wind very slowly and care-

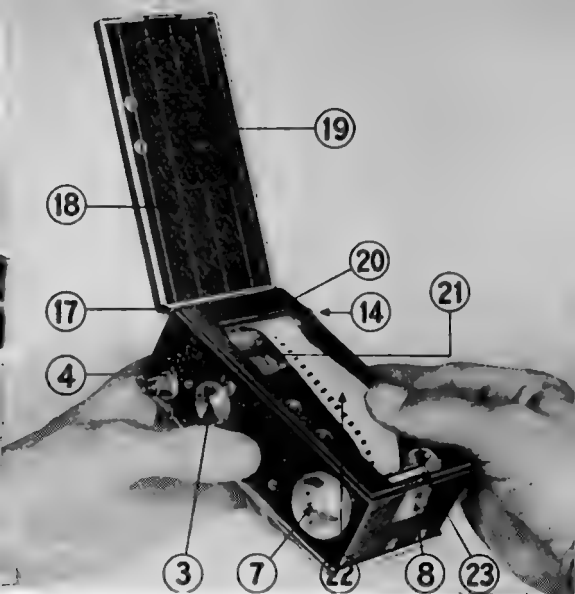


FIGURE 3

fully until the sprocket holes on each side of the film have just engaged in the sprocket which is immediately in front of the lip of your film cartridge.

As soon as the sprocket holes are firmly engaged examine the camera carefully to make sure the film is travelling straight and will not bind, and holding the film in position with the forefingers, carefully close the lid making sure that the pressure plate on the inside of the lid

holds the film in its proper position. Snap the back of the camera shut, making sure it is tightly locked. Now turn the camera with the lens facing away from you and advance the winding knob in the direction of the arrow turning gently until resistance is felt. Do not attempt to force it past this point but with the thumb of the right hand depress the counter dial release (4) and start turning the winding knob again.

As soon as you have started winding the knob, allow the counter dial release to snap back into place and continue winding until resistance is again met. Each time the film stops of its own accord you have advanced the film one full frame. After repeating this operation twice the film is properly adjusted for making your first exposure. Turn the counter dial (3) clockwise until the "o" is opposite the mark on the camera body. The camera counter dial will now automatically register the number of pictures you have taken.

If before loading the camera you have conscientiously practiced with the empty camera as described in the preceding pages you can with confidence expose a full roll of film with reasonable certainty that you will have few if any disappointing pictures. Remember to form the habit of advancing the film one full frame immediately after making each exposure in order to prevent double exposure.

For your convenience, on the back of your camera has been placed a film speed dial (34) shown in Figure 2. Each type of film on the market is given a Weston speed rating according to its particular emulsion speed. This speed

rating is given in the directions included with the particular film and is valuable when using an exposure meter or calculator. Since time often elapses between picture taking ventures, time allowing you to forget the emulsion speed of the particular film you may have in your camera, the film speed dial helps you to keep this speed in mind. When loading your camera, merely turn the dial until the pointer is opposite the Weston rating of your film, and that rating is recorded for you for the time you have that particular film in your camera.

When nearing the end of a roll of film carefully watch the counter dial (3) and be sure not to pull or strain the film for additional exposures. After the counter dial shows that you have taken the number of pictures specified on your roll of film, the film must be rewound. *Never open the camera back until rewinding is complete*, for the entire length of film must be rewound into the film cartridge to prevent fogging.

Turn rewind knob (14) in the direction of the arrow, continuing to turn until counter dial (3) ceases to revolve. Your film may then be safely removed from the camera and must be given fine grain development for best results. If your local photo finisher does not offer a fine grain developing service, you may obtain full particulars and instructions for processing your own negatives by writing Argus Incorporated, Ann Arbor, Michigan. Complete and detailed instructions for developing and printing will be gladly sent to you upon request.

REMOVING THE CAMERA LENS

It is often necessary to remove the Cintar lens from the camera body, for this lens may be used in the Argostat enlarger and may be easily interchanged with the Bausch and Lomb telephoto lens designed for the C-2 and C-3 Argus cameras. To remove or interchange lenses proceed according to the following instructions:

- 1—Lay camera face up with range finder dial to your right.
- 2—Unscrew cap on idler gear and remove gear. Then unscrew lens by grasping knurled ring and turning counterclockwise until lens lifts entirely out.
- 3—Insert alternate lens, turning clockwise gently to avoid damaging threads. When lens is firmly seated, turn knurled ring counterclockwise until lens barrel is fully extended as for a close-up shot.
- 4—Set range finder dial at the three foot mark and drop idler gear in position, turning lens barrel slightly either way until the last possible tooth on lens gear meshes with the idler gear.
- 5—Now rotate range finder dial and note if it stops properly at the infinity mark. If it does not, note which way it is off, and by how many teeth. Then return the dial to the three foot mark. Remove the idler gear cap, lift up wheel and turn range finder dial the correct number of teeth in the required direction. Then replace idler gear and cap.

- 6—Important when using telephoto lens is to be sure to clip the small black mask into position over the view finder. The small tab bearing the number 75 extends above the camera as a warning that the telephoto lens is on the camera.

PHOTOFLASHING WITH YOUR C-3 CAMERA

The C-3 camera differs only from the C-2 in being equipped with a built-in synchronizer mechanism for photoflash photography. C-2 owners need not bother to read this section since it does not apply to their cameras. C-2 cameras may at any time, however, be converted for photoflash work. Full details on conversion of these models may be obtained from our Service Department.

Photoflash photography with your C-3 camera can be made an easy matter if a few simple rules are carefully followed. The built-in synchronizer mechanism on the camera automatically times the light flash and shutter opening to occur simultaneously so that only careful attention to a reliable exposure table is necessary for obtaining excellent photoflash results.

The photoflash battery case (32) and reflector (30) are mounted on the camera as shown in Figure 4. The battery case should be loaded with two fresh No. 935 size C Eveready flashlight batteries or equivalent by removing case cap (35) and sliding both batteries into place with contact posts facing upwards toward the photoflash reflector.



FIGURE 4

Before inserting a flash bulb attach the flash gun to the camera by sliding the two contact prongs (33) into contact sockets (39). Remember always to mount the battery case and reflector on the camera *before* inserting the flash bulb to prevent short circuit and pre-firing of the bulb.

After the flashgun has been attached to the camera, screw the bulb into place and adjust

the reflector so that its center is in line with the center of the round portion of the flash bulb. The shutter may be cocked before or after the bulb is inserted, for the bulb will fire automatically only when the shutter opens for exposure.

From here, all camera operations are carried out as in ordinary picture taking, except that a reliable photoflash table must be consulted. Enclosed with this booklet is the "Argoflash Handy Photoflash Exposure Guide." This guide will help you judge correct stop openings and shutter speeds when using different films and flash bulbs. The table may be used directly for all shutter speeds up to $1/50$ of a second. For $1/100$ of a second exposures, use one stop larger opening than that specified in the table.

Any one of the bulbs given in the table may be used for photoflash work. For the vast majority of photoflash pictures, however, either the No. 0 Wabash or the No. 11 General Electric-Westinghouse bulb will be found most satisfactory.

The use of shutter speeds greater than $1/100$ of a second for synchronized photoflash work is not recommended. Since the duration of flash of a flash bulb is approximately $1/50$ of a second, you will realize that by using greater speeds, you are wasting the majority of your useful light. It is recommended, therefore, that you never use speeds greater than $1/100$ of a second in your photoflash work.

OUTDOOR EXPOSURE TABLE

Giving approximate exposures for E. K. Panatomic X, Dupont Superior, Agfa Finopan or Fine Grain Plenachrome.			Before 10 A.M. and After 2 P.M.		10 A.M. to 2 P.M.	
			Shutter Speed	Stop	Shutte Speed	Stop
Shaded Locations	Summer	Clear	1/50	f:6.3	1/30	f:12.7
		Overcast	1/30	f:6.3	1/50	f:6.3
		Very Dull	1/30	f:4.5	1/30	f:6.3
	Winter	Clear	1/50	f:4.5	1/50	f:6.3
		Overcast	1/30	f:4.5	1/50	f:4.5
		Very Dull	1/30	f:3.5	1/30	f:4.5
Por-traits	Summer	Clear	1/50	f:6.3	1/100	f:6.3
		Overcast	1/75	f:4.5	1/50	f:6.3
		Very Dull	1/50	f:4.5	1/75	f:4.5
	Winter	Clear	1/50	f:4.5	1/50	f:6.3
		Overcast	1/50	f:3.5	1/50	f:4.5
		Very Dull	1/30	f:3.5	1/50	f:3.5
Street Scenes Snap-shots Groups in open	Summer	Clear	1/100	f:6.3	1/50	f:12.7
		Overcast	1/50	f:6.3	1/100	f:6.3
		Very Dull	1/75	f:4.5	1/50	f:6.3
	Winter	Clear	1/50	f:6.3	1/100	f:6.3
		Overcast	1/75	f:4.5	1/50	f:6.3
		Very Dull	1/50	f:4.5	1/75	f:4.5
Distant Land-scapes	Summer	Clear	1/50	f:12.7	1/50	f:18
		Overcast	1/100	f:6.3	1/50	f:12.7
		Very Dull	1/50	f:6.3	1/100	f:6.3
	Winter	Clear	1/100	f:6.3	1/50	f:12.7
		Overcast	1/50	f:6.3	1/100	f:6.3
		Very Dull	1/75	f:4.5	1/50	f:6.3
Marine views and Snow Scenes	Summer	Clear	1/100	f:18	1/200	f:18
		Overcast	1/100	f:12.7	1/200	f:12.7
		Very Dull	1/200	f:6.3	1/300	f:6.3
	Winter	Clear	1/100	f:12.7	1/200	f:12.7
		Overcast	1/200	f:6.3	1/300	f:6.3
		Very Dull	1/100	f:6.3	1/200	f:6.3
Sports Shots in open	Summer	Clear	1/300	f:3.5	1/300	f:4.5
		Overcast	1/200	f:3.5	1/300	f:3.5
		Very Dull	1/100	f:3.5	1/200	f:3.5
	Winter	Clear	1/200	f:3.5	1/300	f:3.5
		Overcast	1/150	f:3.5	1/200	f:3.5
		Very Dull	1/100	f:3.5	1/150	f:3.5

DEPTH OF FIELD TABLE

This table enables you to determine what objects are sharply in focus at different range finder settings and diaphragm openings. At any range finder setting, the range over which objects are sharply in focus may be determined by looking across the table to the diaphragm opening being used and reading directly from the table. As an example, with the range finder set at 8 feet and the diaphragm at f:3.5, objects between 7 feet and 9 feet, 4 inches from the camera are sharply in focus.

Feet	f:3.5	f:4.5	f:6.3	f:9	f:12.7	f:18
3	2'10"-3'2"	2'10"-3'3"	2'9"-3'4"	2'8"-3'6"	2'6"-3'8"	2'4"-4'1"
3.5	3'4"-3'9"	3'3"-3'10"	3'2"-3'11"	3'0"-4'2"	2'10"-4'6"	2'8"-5'1"
4	3'9"-4'4"	3'8"-4'5"	3'2"-4'7"	3'5"-4'11"	3'2"-5'4"	2'11"-6'3"
5	4'7"-5'6"	4'6"-5'8"	4'4"-5'11"	4'2"-6'7"	3'10"-7'4"	3'5"-9'1"
6	5'5"-6'9"	5'3"-6'11"	5'1"-7'5"	4'9"-8'3"	4'4"-9'10"	3'11"-13'1"
8	7'0"-9'4"	6'9"-9'9"	6'4"-10'9"	5'10"-12'7"	5'3"-16'6"	4'8"-29'4"
10	8'8"-12'2"	8'2"-13'0"	7'7"-14'9"	6'8"-18'6"	6'1"-28'2"	5'3"-114'
15	12'0"-20'6"	11'2"-23'0"	10'1"-29'0"	8'10"-48'6"	7'7"-57'3"	6'4"-∞
25	17'2"-45'4"	16'0"-59'2"	14'0"-130'	11'7"-∞	9'6"-∞	7'7"-∞
50	26'4"-500'	23'2"-∞	19'0"-∞	15'1"-∞	11'8"-∞	8'11"-∞
100	35'8"-∞	30'2"-∞	27'6"-∞	17'8"-∞	13'3"-∞	9'9"-∞
∞	55'4"-∞	43'2"-∞	30'8"-∞	21'6"-∞	15'6"-∞	10'9"-∞

GUARANTEE AND SERVICE POLICY

Argus cameras are guaranteed against defective material and workmanship for ninety days after shipment. If defective the camera should be returned to the factory with transportation charges prepaid. The defect will be promptly corrected and the camera returned prepaid.

To assure Argus owners of low upkeep costs, after expiration of above guarantee, the factory will inspect and re-adjust any Argus camera shipped to them prepaid and return it to the owner prepaid for the sum of \$2.50 for the Model C-2 and \$3.00 for the Model C-3 camera. This policy is effective for one year from date of purchase and applies only to cameras sent directly to the factory by the owner. This does not cover replacement of cameras broken through misuse or cameras which have been abused.

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